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ABSTRACT

From the 1950s through the 1970s, children's play with blocks was seen as facilitating many developmental and educational outcomes, including art and creativity. In the 1980s there is less interest in the use of blocks to help children acquire art concepts and sensitivities as the pressure for back to the basics increases. This paper aims to reverse this trend by (1) discussing how blocks represent the young child's art world, (2) describing how children's involvement in the medium of blocks can be meaningfully facilitated by the classroom teacher, and (3) discussing art concepts that can be developed using the medium of blocks. The paper provides an overview of discovering and learning art with blocks, proposes a methodology by which teachers can enhance children's awareness of art and aesthetic sensibility, and offers guidelines for teachers guiding children who are building structures with blocks. The proposed methodology is based on a study of the effect of discovery/learning episodes on children's acquisition of art concepts, and the effects of this acquisition on the structures the children built with blocks. (RH)

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USING BLOCKS TO BUILD ART CONCEPTS:

A NEW LOOK AT AN OLD FRIEND

by

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ABSTRACT

Blocks are common materials, used by young children. Educational texts have categorized block building as an art activity, yet few if any, art concepts that can enhance aesthetic knowledge have been noted. Art concepts that can be developed, how block building can be facilitated and how blocks represent the young child's art world will be discussed in this article. The examination of the process and product of block building can assist the child in using this familiar medium in a new way.

The value of blocks and block play for young children has been recognized throughout the history of the kindergarten movement. Froebel (1782-1852) the Father of the Kindergarten, praised their importance as a building activity and applied them as learning agents in his curriculum. Harriet Johnson(1867 - 1934), a pioneer and powerful influence in early childhood education found blocks to be a versatile catalyst motivating cognitive, social, physical and aesthetic developments. Since Froebel and Johnson's initial teachings and writings in this area, the advantages and values inherent in blocks have been continuously cited by educational writers (Seefeldt, 1980, Hirsch, 1984, Morrison, 1984).

Blocks also have been identified as a means of promoting sensory exploration and manipulation for developing perceptual relationships (e.g., size, space, form, balance, leverage) (Hirsch, 1984). Along with increasing motor and language development, they have been cited as facilitating organization, planning and free expression in young children. Educational texts have capitalized on these values and emphasized the use of blocks as a potentially rich learning experience in the early years (Seefeldt, 1980, Morrison, 1984, Leeper, 1984). These texts generally categorize block building as an art activity, yet few if any concepts developed through their use, are noted. In fact educational writings have revealed limited suggestions for facilitating art information with young children. Schwartz and Douglas

(1967) and Gelfer (1981), however found that 3-5 year old children, when encouraged to examine, explore, and talk about ceramic art and blocks, could learn art concepts such as pattern, design, balance, artist, line, etc. and as their understandings increased their products demonstrated greater complexities.

Learning a concept requires identifying a stimulus as a member of a class having some characteristics in common (Gagne' & Briggs, 1974). A concept can be defined as an abstract that represents an object-event that has similar properties. Concept development is continuous throughout life beginning as early as the ability to talk.

Concept formation is characteristic of the preschool child's acquisition of common ideas from their everyday experiences. It is a type of discovery learning involving basic underlying psychological processes such as problem solving, analyzing, differentiating, and generating and testing hypotheses. An individual's concept of anything is organized from meaningful associations that he/she has formed of objects or events. The more varied and meaningful the experiences, the greater the possibility of concept formation.

Blocks involve the young child in manipulating, visually perceiving, selecting, ordering, reasoning and organizing, which results in the formation of concepts. Therefore, suggesting the potential for a workable and informative relationship between the child, the process and the material. The block structures are symbols representing children's concepts of the experiences they have had. Then by representing these experiences in the block structures, the child's concepts can be strengthened and enlarged.

In the decade between the fifties and continuing into the seventies, blocks were viewed as valuable for creativity, conversation, spatial orientation, achievement, satisfaction and for the formulation of mathematical concepts (Franklin, Danglee & Fishman, 1950, Rudolph & Cohen, 1964). Educational texts of the seventies recommended blocks as important educational material for art, science, math, social studies and the dramatics curriculum (Hendrick, 1980, Seefeldt, 1980, Hammond, et al., 1979). They discussed the importance of blocks in relationship to values to be gained, selection, placement and their uses within the learning curriculum. They also categorized block building as an art activity yet few, if any, concepts developed through their use are noted. The eighties appear to show even less interest in blocks as the pressure for back to the basics increases (Maxim, 1980, Ramsey & Bayless, 1980).

The limited mention and investigation of the use of blocks to facilitate art concepts indicates a need to examine this issue. Their use as an art medium has been noted, but little aid is given the teacher in ways of helping children. The purpose of this article, therefore, will be threefold, it will (1) discuss how blocks represent the young child's art world, (2) describe how the medium blocks can be meaningfully facilitated by the teacher and (3) discuss art concepts that can be developed using the medium blocks. These purposes will work together to illustrate the relationship between the process of block building and the product of the block structure. The concepts and suggested facilitation will focus on what could be emphasized during the process, whereas, the product can help the child in representing his/her world.

Discovering and Learning Art with Blocks

Art, by its nature depends upon individuals' ability to express their understandings, ideas and feelings creatively. Personal judgements and choices are the very essence of art. Art enables children to approach problems at their own level; it requires that they project and test their own criteria and standards of excellence against the standards and criteria that the school helps develop.

Aesthetic growth is often considered the fundamental ingredient of any art experience (Lowenfeld & Brittain, 1987). Aesthetic growth can be considered the organization of thinking abilities, the development of perceptual abilities and the close relationship to emotional capabilities. Developing aesthetic awareness means educating sensitivity toward perceptual, intellectual and emotional experiences so that these are enhanced and integrated into a harmonious organized whole. Aesthetics can be a fundamental way of relating oneself to the environment. That is, looking at, responding to, feeling a part of, being aware of textures and forms, reacting to differences and similarities, liking or disliking an object, and noticing differences in organization.

Art is a dynamic and integrating activity, with considerable potential for the education of young children. The process of drawing, painting or constructing is an elaborate one in which children convey diverse elements of their experience to make a new and meaningful whole. In the process of choosing, interpreting and organizing these elements, children have given us more than a picture or a sculpture, they have disposed a factor of themselves (how they think, feel and visualize).

Children can experience qualities unique to the arts through a variety of actions. Designing, planning and constructing are ways of producing objects of work with art

qualities. Gardner (1980) cites blocks as a plastic for use with children being comparable to modeling in clay or wielding a brush, a pencil or magic marker. It follows then that blocks would be one of the first materials given to children to provide them opportunities to produce an object with aesthetic quality.

The art product of the young child is the result of many experiences. The ability to manipulate materials, visually perceive and demonstrate enthusiasm and endurance while working are process components which lead to new discoveries and products. Block building may provide the necessary experiences to facilitate the early conception of perceiving, selecting, ordering, reasoning, and abstracting through concrete operations. The appreciation and application of all art demands upon an understanding of the art process and product which both prevents misconceptions and enriches one's experiences.

The young child can learn to understand art processes and products through activity obtained through multiple dimensions involved in the learning process. According to Bruner (1973), children represent their experiences through 3 means: (1) enactive representation - doing, manipulating and becoming involved; (2) iconic representation - imagery that in effect stops the action and summarizes it in a representation; (3) abstract representation - ideas that include arbitrariness, that is, they are abstract, and are

represented by symbols. Dewey, Piaget and Bruner have emphasized that for young children learning is best acquired by doing, interacting and building knowledge within the context of applied learning setting. Children are quite dependent upon what they can experience first hand (Seefeldt, 1980). Concepts are developed as children explore properties of materials through physical and social experiences. According to Flannery (1974), the concept of an object is facilitated by sensory awareness on the part of the child. The experience of observing and discussing while handling, placing and replacing blocks as children build constructions forms a concrete foundation for concept and knowledge acquisition. Thus, children can explore the blocks as an art medium, using their visual and tactile sense and thereby acquire directly the meaning of concepts and art knowledge.

Block building experiences of young children involve many facets of aesthetic development. The placement of blocks depends not only on motor skills, but also on conceptual understandings of near, far, beside, under, over, among the blocks themselves. The form and design qualities of the children's block building are affected by the growing awareness of the child's ability to identify structures, forms and shapes, sizes, mass and volume, line and movement. In block constructions, children are concerned with such conceptual qualities as balance, symmetry, space and ideas as they draw upon past experiences and

knowledge of the environment to produce their products. Block building offers children an opportunity to experience, extend and reinforce concepts. The developing of art concepts then is inherent in block building.

Enhancing Artistic Ability: A Proposed Methodology

Childhood educators need to guide learning by naming, labeling, and encouraging curiosity which leads the child toward building new concepts and opens avenues for further exploration and inquisitiveness (Seefeldt, 1980). Young children should be given reinforcement in building knowledge which is derived from and related to knowledge learned under the guidance of the teacher or related experiences. Blocks with teacher guidance, exploration and past experiences are vehicles which help facilitate the aesthetic aspects and awareness of art.

Gelfer (1981) investigated the significance of using blocks as an art medium to facilitate selected concepts through regularly scheduled learning episodes to young children 3 and 4 years of age. The study examined the effect learning the selected concepts had on the block structure the children built. Central Midwestern Regional Educational Laboratory, Inc. (CEMREL), has identified different attributes which motivate and influence students toward the general goal of aesthetic education. Examples of these

attributes are those related to shape, line, dimension, relationships, patterns, variations, structure and ideas. Gelfer initially listed examples of these attributes and with a professor of art education and early childhood education selected a list of those that could be identified as relevant to the medium of blocks. For validation, 42 attributes were chosen, photographed using blocks, listed and submitted to 2 specialists in the area of early childhood education and one in each of the areas of measurement theory, child development, art education and architecture. They were asked to indicate whether specific attributes could be identified by preschoolers and to note all those which they perceived as questionable. There were no disagreements among the specialists and all items were used. The final list was organized into the following simple conceptual statements:

1. Ideas can be expressed through constructing the medium of blocks.
2. Each block has shape, dimension, mass and weight.
3. Blocks vary in shape, dimension and mass. They have names as square, circle, arch, rectangle and in some ways are different/similar.
4. Blocks come in a variety of sizes.
5. Blocks can be put together in a variety of ways creating new sizes, shapes, dimensions and masses.
6. When using the medium of blocks to express ideas, structures are created (a) with different kinds of

shapes, (b) with different kinds of lines enclosing spaces.

7. Using the medium of blocks to express ideas, structures are created having different kinds of qualities, variety, complexity, repetition, balance and etc.
8. When using the medium of blocks to express ideas, emotions can be released in an acceptable form.

The study used a combination of discovery/learning and teacher-interaction while exposing young children to art concepts inherent in their block buildings. Through this approach children were encouraged to explore the material and become more sensitive to symbol makers and users. This study provided the children with the opportunity to learn through sensory motor activities related to their age; and their capabilities to plan, organize identify, judge and apply new ideas as they worked. The experimental subjects received one discovery learning episode per week for six weeks. No learning episodes were missed by the participants. The control group was encouraged to build with blocks but did not participate in any planned learning episodes.

To test the hypotheses two instruments, Concepts Using Blocks and Art Test (CUBAT) and Concepts Application Rating Scale (CARS) were designed and administered by the investigator for pre- and posttesting. The investigator scored the concept identification test while three raters

trained by him scored the block structures.

Two hypotheses were tested. Hypothesis 1 examined the effect the discovery/learning episodes had on the children's acquisition of art concepts compared to those who did not participate in the these episodes. The results yielded a significance at the .001 level in favor of the experimental group. Hypothesis 2 examined the effects the discovery/learning episodes had on children's block structures compared to those who did not participate in these episodes as measured by the CARS posttest. The results yielded a significance at the .001 level in favor of the experimental group.

The discovery/learning episodes were successful because they provided the children with the opportunity to learn through sensory-motor activities related to their age; and their capabilities to plan, organize, identify, judge and apply new ideas as they worked. Blocks were found to be effective for this group of children.

The following teaching methodology using blocks applied by Gelfer, helped individual children increase their understanding and application of aesthetic and functional aspects of art. It is of most importance for the teacher of young children to establish an organized plan comprising developmental goals and objectives before the art experience is to occur. This methodology suggests that the learning environment be organized and take place in a designated section of the school room which provides access to a set of

regulation wooden blocks and other manipulatives that can be applied to the block building process. Prior to the scheduled block building experience teachers can construct block structures that exemplify diverse concepts, embellish the environment with block constructions previously built by students, display pictures of aesthetic constructions that may motivate the youngsters to originate their own uniqueness and provide an assortment of manipulatives that could be applied to their creations. The structures should be placed in the environment where the child has easy access to observe and explore independently. The teacher should also be available for assistance and in a close proximity of all students working with the blocks.

Once arriving to the block building environment, the children should be guided by the teacher to observe the block building constructions. Children should be encouraged to examine and explore the block building constructions, generate questions about the structures and extend and alter the structures. Each scheduled block building experience should help students explore the art concepts and attributes which had been identified and discussed in previous sessions. Using question strategies and encouraging the children to reconstruct structures from previous learning experiences can only extend to the acquisition of art information.

As the children enter the block building environment and work with the blocks, the teacher interacts with those

children he/she perceives to be in need of assistance. The teacher can approach these individual children by asking questions which helps them focus on concepts inherent in their creation. For instance, if the the teacher wants to encourage the concept, blocks can be placed in various positions when creating an idea the teacher approaches individual children asking questions which direct attention to their constructions. Pointing to two blocks (both rectangular and touching), the teacher may ask, "How are these put together (separated in front of, behind, on the right, on the left)?" Pointing to another two blocks, ask, "How are these put together (on top of, below, underneath, etc.)?" Other types of questions that may motivate new observation and organizational skills can be facilitated by asking, "what sizes have you used? Why did you choose this block to go here? When these blocks are arranged, what happens?" Prior to cleanup the teacher may encourage his/her students to look as a group at what each student created (apply five to ten minutes). Teacher may originate questions or students may volunteer their evaluations regarding students' block creations.

Using a combination of teacher guidance and interaction focusing in on aesthetic and function attributes of art, children can be helped to explore materials and become more sensitive symbol makers and users. This will help children evolve new thoughts and creation of concepts, numerous

symbols and constructive meanings.

Art with Blocks and Teacher Guidance

Art not only makes the ineffable and visionary available, it also functions as a means of activating our sensibilities that is, it provides, the subject matter through which our human potentialities can be exercised (Eisner, 1972). Art gives children the opportunity to learn to make judgements of discrimination about the ways in which visual intelligence and imagination utilize space, line, size, color, shape and light to achieve composition, structure, portion, perspective rhythm and harmony (Gardner, 1980 and McFee, 1971).

According to Abrams (1953), there are four elements in the total situation of a work of art that most theories of art discriminate and make salient:

1. The work of art itself (this can be the child's block building);
2. The artist as the work's creator (the child who makes the block building);
3. The audience to whom the work of art is addressed (the child's peers, themselves and the teacher); and
4. The universe presented in the work, that is what the work is about (the idea underlying the block structure).

In the block building experience children may be able to

express their ideas in a form of communication as they are involved in a sensory experience. The use of blocks as a medium to facilitate art from both the view of the artist and the art critic can provide children with many opportunities to express and evaluate ideas. One may infer that the medium of blocks facilitates new aesthetic developments for young children.

Piaget and Bruner's theories see children's actions as facilitators to cognition, thus it appears block building for young children would seem to be a logical medium in which to recognize and learn symbols and concepts that can be related and applied to art. Blocks would seem to be a medium for expressing and communicating symbols and concepts in the art world.

As children compose and perform, teachers can elicit language which will help them observe, feel, label and describe aesthetic and cognitive qualities of the blocks and their products. Given the opportunity to use blocks with a combination of discovery/learning and teacher-interaction young children will be able to explore the material, its relationship and become more sensitive symbol makers and users.

Experiences with blocks in a discovery/learning environment can contribute to new acquisitions and developments which may be utilized and integrated into potential learning opportunities. Throughout this paper

blocks with teacher guidance has been recognized as a catalyst to the young child's learning and constructing knowledge. It is the authors' premise that young children have had access to blocks since Froebel's teaching but the use and facilitation of art with blocks has been overlooked. Blocks have been the child's friend and linkage to learning and constructing valuable acquisitions and development. Friendship requires sharing, communicating and understanding the prolific dimensions of relationships. If we are to manifest a friendship with blocks those same attributes need to be applied. The process which is involved in block building can be examined for its critical components. These components, once identified, can be taught to children in meaningful ways by using teacher guidance throughout the process. This information can be incorporated in the child's representation of his/her world--the product of a block structure. Therefore, by emphasizing the relationship and importance of both the process and product, the child will be able to benefit and gain new insights, both aesthetically and cognitive, when interacting with blocks and the guidance of a sensitive and knowledgeable teacher.

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